

# Clarke®



## SHOT BLAST CABINET

Model No: CSB20B

Part No: 7640110

## USER INSTRUCTIONS

---

# INTRODUCTION

---

Thank you for purchasing this CLARKE Shot Blast Cabinet which is designed for professional workshop use.

Please read and follow the instructions carefully. In doing so you will ensure the safety of yourself and others around you, and you can look forward to the product giving you long & satisfactory service.

**Please keep these instructions in a safe place for future reference**

## GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for its intended purpose. Faulty goods should be returned to their place of purchase. No product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

## ENVIRONMENTAL PROTECTION



Do not dispose of scrap metal with general household waste. All old tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of appropriately.

---

## CONTENTS

---

Features	3
Safety Precautions	3
Inventory	4
Assembly	5
Operation	6
Maintenance	8
Troubleshooting	9
Component Parts	10

---

## FEATURES

---

The 3 cu ft cabinet is lit by a low voltage (12 volt) fluorescent tube, fed from a plug-in type transformer. The switchbox is mounted on the left side of the cabinet. The transformer should be plugged directly into the mains supply and connected to the switchbox which contains the ON/OFF rocker switch.

We strongly recommend that this unit be used with a vacuum extraction device.

Air is extracted via a double filtration system at the right hand side of the cabinet.

Please note that when vacuum extraction is used, air will be drawn into the cabinet through the hole on the back panel of the unit. The hole is covered on the outside with a filter plate, and housed within the plate is a foam filter, which must always be in place. This is to prevent grit from being blown out, if/when the vacuum extraction is NOT used.

The lid is provided with a double clear plastic window, the inner of which may be renewed quickly and easily if it should become damaged by the sand blasting action.

A variety of abrasive nozzles is supplied with the unit to produce a useful range of power and grit densities to satisfy all requirements. The cabinet is designed for use with dry abrasives ONLY. We recommend Aluminium Oxide (for cleaning steel) and Glass Beads (for cleaning aluminium).

It is necessary to provide a clean, dry air supply, capable of delivering a minimum of 10 cuft/min at a maximum 100psi. Please consult your air compressor manual, ensuring you comply with all safety precautions regarding the use of air compressors, and observe all necessary precautions when using compressed air.

---

## SAFETY PRECAUTIONS

---

Ensure you comply with all precautions regarding the use of air compressors and compressed air.

- Ensure all air connections are secure.
- Do Not use the machine if the integral gloves are ripped or unserviceable.
- Keep the jet well away from the air hose, gloves, florescent tube & window.
- Ensure the clear plastic lid is firmly secured before pressing the trigger.

- ALWAYS wear safety glasses. (Normal eye glasses are NOT safety glasses).
- Do not use any silica based abrasives with this tool. Silica based abrasives have been linked to severe respiratory disease. Always use recommended abrasives. Abrasives used in this unit may be covered by COSHH Regulations.inventory.

---

## INVENTORY

---

Carefully unpack the unit, and check to ensure that no damage was caused in transit. Should any damage be apparent, please contact your Clarke dealer immediately. Remove all components from the carton and check them against the following list.

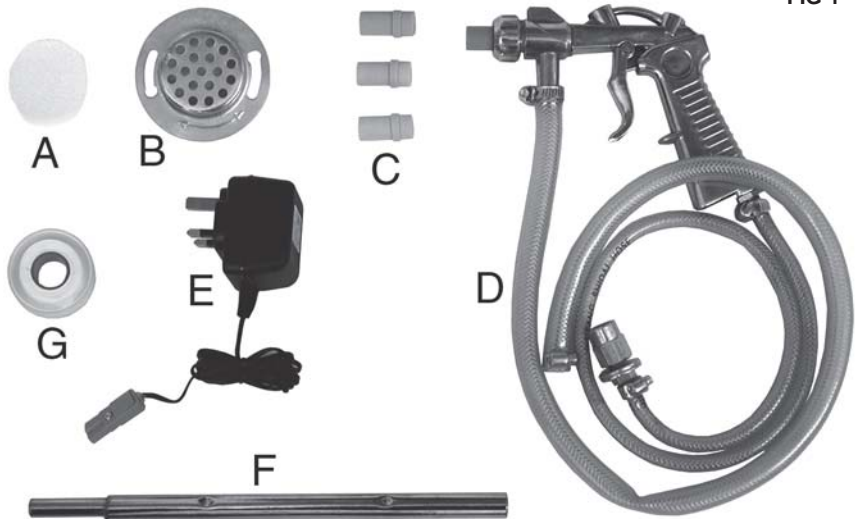


FIG 1

- A - Foam Vent Filter
- B - Air Vent Cover
- C - Ceramic Nozzles 4, 5, 6 & 7mm  
(One nozzle is fitted)
- D - Gun c/w air and Pick up hoses
- E - 12V transformer w/cable
- F - Abrasive pick up
- G - PTFE Tape.

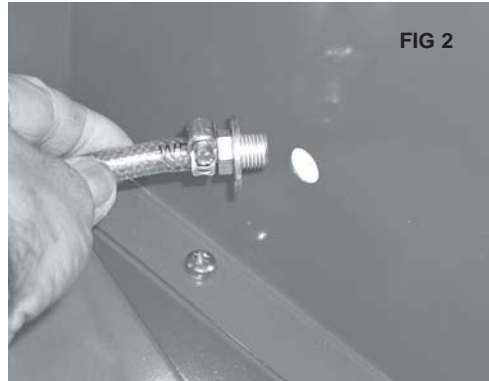
## ASSEMBLY

The unit is shipped completely assembled, except for the air vent filter and the gun with attached hoses. These should be connected as follows:

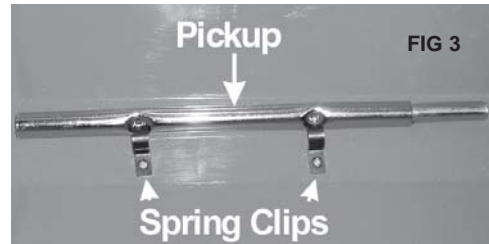
First, remove the grid and all the various components from within the cabinet.

The end of the air inlet hose, connected to the gun, is inserted through the 16mm dia. hole in the cabinet from the inside, as shown in Fig. 2. Ensure a flat washer is threaded on to the adapter as shown.

Thread a flat washer, followed by the extended nut, onto the adapter, from the outside of the cabinet, and tighten.



Connect the grit pick up hose to the pick-up and tighten the worm drive clip securely. Locate the pick up on the floor of the cabinet. It is secured with the two spring clips as shown in Fig 3.



Replace the grid, ensuring the feet face downwards with the cut away section at the right hand rear of the cabinet. The pick up hose should be routed through the gap made by the cut away portion of the grid.

Insert the circular foam filter into the recess in the Air Vent Cover, and attach the cover to the rear of the cabinet as shown in Fig.4, having first prised out the plastic bung from the vent hole.



Finally, connect the air supply to the extended nut shown in Fig.5. Use of the PTFE tape supplied with ensure an airtight seal.

The air supply should be dry, and capable of delivering a minimum of 10 cuft/min at 100 lbf/in<sup>2</sup>



---

## OPERATION

---

Plug the transformer into the power supply and switch the power ON. Switch the lamp ON by pushing the rocker switch on the switch box 'I'. Switch OFF by pushing 'O'.

Ensure all air connections are secure, and the pick up is correctly located beneath the grid, before filling the cabinet with abrasive media. Do not fill higher than the level of the grid.

**NOTE: PTFE tape is provided which may be used on the threads of the various connectors to ensure an airtight connection.**

Select the ceramic abrasive nozzle to produce the jet required for the abrasive media being used, and assemble according to the instructions given below.

Place the object to be cleaned in the cabinet, and close the lid, securing with the two swivel clips.

If you are using a vacuum extraction device, turn it on before turning on the air supply. Set the pressure to the required value, but not higher than 100lbf/in<sup>2</sup>, and check to ensure there are no air leaks. Should there be any, turn off the air supply and repair where necessary, before turning the supply back on. Pull the trigger on the gun and proceed to blast the object to be cleaned.

Keep the jet facing the object and away from the clear plastic lid. Do not allow the jet to train on the rubber gloves, the air hose within the cabinet or the fluorescent lamp.

Keep the jet facing the object and away from the clear plastic lid. Do not allow the jet to train on the rubber gloves, the air hose within the cabinet or the fluorescent lamp.

When completed, release the trigger then turn off the air supply. As a precautionary measure, **ALWAYS** pull the trigger before opening the lid.

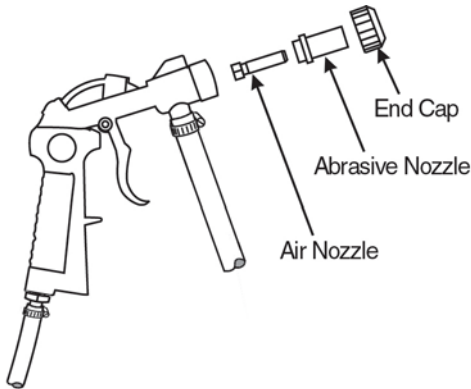
## **NOTES:**

*There are no hard or fast rules governing nozzle sizes and air pressures used with different abrasives. With experience and experimentation you will quickly learn the best combinations for the required result.*

On more delicate parts, start with minimal air pressure to avoid unnecessary peening or excessive abrasion, and work up to a setting to produce the desired finish.

Should any abrasive be spilled, ensure it is cleaned up immediately, as its slippery properties can be extremely hazardous

## **REPLACING THE ABRASIVE NOZZLE**



Ensure the air supply is disconnected before performing this operation.

1. Pull the trigger of the gun as a precautionary measure.
2. Unscrew the end cap and withdraw the ceramic nozzle.
3. Replace with the nozzle of your choice and carefully thread the end cap back on to the gun, taking great care **NOT** to cross thread the fine thread.

**NOTE:** *Should it be necessary to change the air nozzle, first remove the abrasive nozzle as described above. A box spanner will be required to unscrew and withdraw the air nozzle.*

# MAINTENANCE

Before use, check to ensure that all parts are serviceable, including the air inlet hose, rubber gloves and abrasive pick-up.

Ensure the air vent foam filter is in place.

The swivel clamps, securing the lid, must be secure so as not to allow the lid to open during operation. The build up of air pressure within the cabinet could force the lid open, allowing abrasive to escape. This is not only wasteful, but could be a health hazard.

Ensure the filters are serviceable and seated correctly.

Ensure you comply with all precautions regarding the use of compressed air, and air compressor operation.

## CHANGING THE FLUORESCENT TUBE

Ensure the transformer is disconnected from the power supply before opening the door and cutting the two ties securing the lamp to its retaining clips.

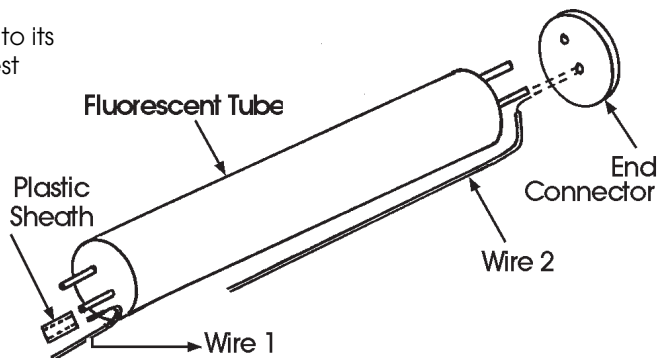
Carefully pull the lamp from its retaining clips then hold the clear plastic protective outer tube firmly and ease off the plastic end cover from the non-wired end. (This may take a little persuasion and perseverance).

Once the end cover has been removed, hold the end cover at the opposite end (the cable input end), and pull off the outer protective clear plastic tube. The fluorescent tube is now fully revealed.

Pull off the end connector, which secures a wire to one of the pins, taking care not to distort the aluminium reflector. Then pull off the wire secured by a plastic sheath to one of the pins at the cable input end.

Assemble in reverse order, ensuring the wires are correctly held by the plastic sheath at one end and the end connector at the other, with the reflector correctly in position.

Re-fit the assembly into its retaining clips and test its operation by plugging the transformer into the mains.

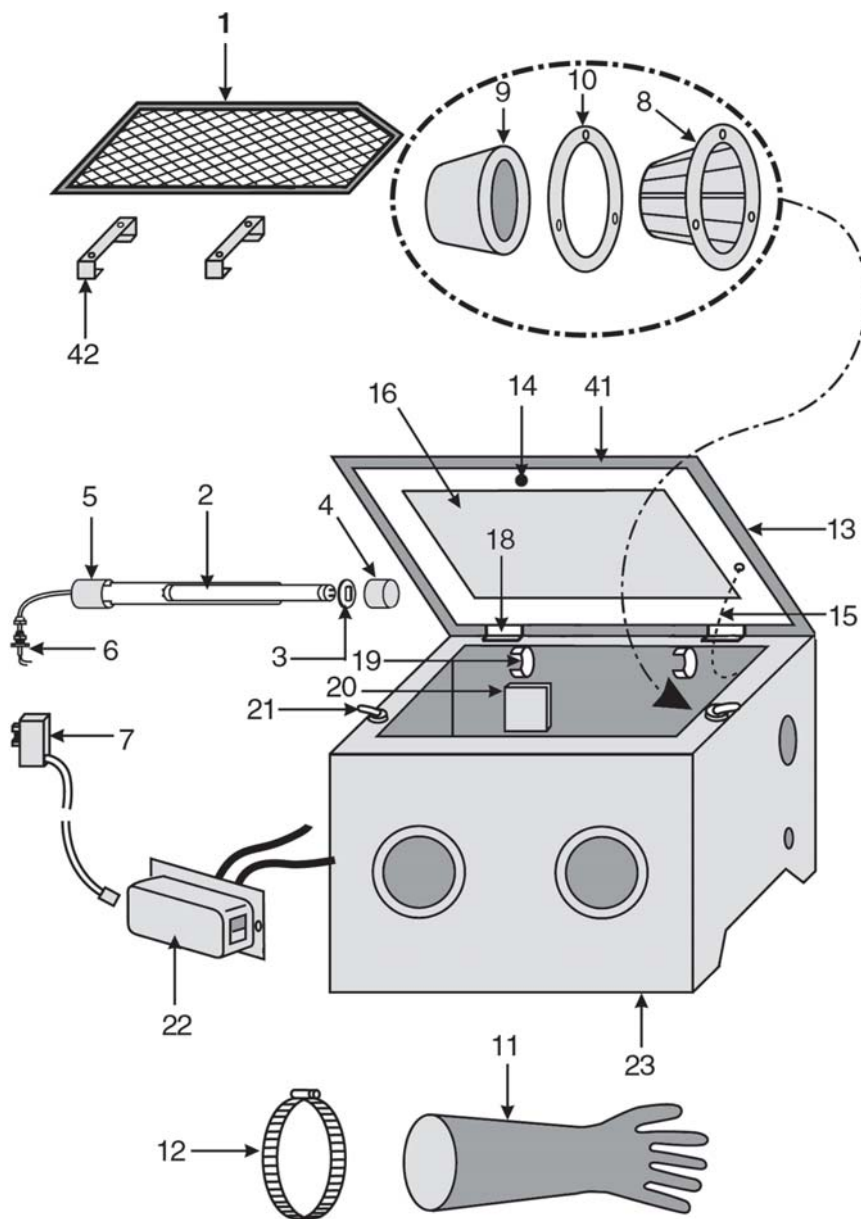


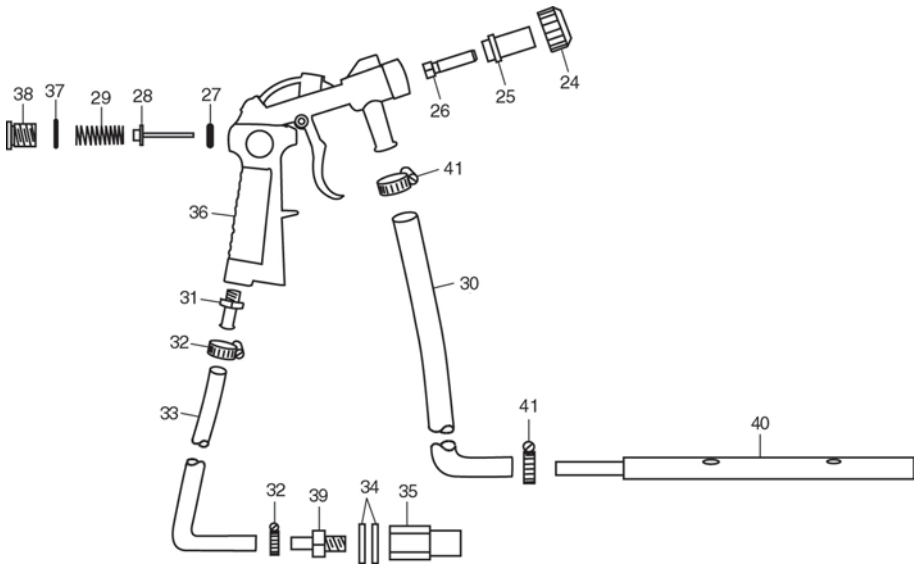


# TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Excessive dust in cabinet.	No dust extract device used.	Install dust extract device.
	Air vent or overflow is blocked.	Clean rear vent and keep vent away from any wall.
	Abrasive media worn.	Replace abrasive media.
	Too much abrasive media in the cabinet	Remove excessive media.
	Loose air line or loose connections.	Tighten fittings and ensure air line is secure.
Uneven blasting action.	Too much abrasive media in the cabinet.	Remove excessive media.
	Abrasive is damp.	Renew abrasive or dry thoroughly before use.
	Moisture present inside cabinet.	Check air line to ensure it is free from moisture.
Inadequate speed or inefficient blast.	Abrasive media worn	Replace abrasive media
	Pressure too low.	Increase inlet pressure and ensure control valve is fully open.
Static electricity present.	Dry weather conditions.	Leave the item to be cleaned on the grid.
Excessive media blown into the surrounding atmosphere when no vacuum extract is being used.	Lid not secure.	Secure the lid with the swivel clips and adjust them if necessary.
	Air vent filter missing.	Replace filter or blank off hole in rear panel temporarily with masking tape. (Remember to remove masking tape when using vacuum extraction).

# COMPONENT PARTS





Item	Description	Part No.	Item	Description	Part No.
1	Grid	HTCSB2001	25A	Abrasive Nozzle 4mm	
2	Flourescent Tube	HTCSB2002	25B	Abrasive Nozzle 5mm	
3	End Connector	HTCSB2003	25C	Abrasive Nozzle 6mm	
4	Plastic Cover	HTCSB2004	25D	Abrasive Nozzle 7mm	HTCSB2025
5	Input Cable Assy	HTCSB2005	26	Air Nozzle	HTCSB2026
6	Cable Gland Assy	HTCSB2006	27	O-ring	HTCSB2027
7	Power Cable Assy	HTCSB2007	28	Push Rod	HTCSB2028
8	Main Filter	HTCSB2008	29	Return Spring	HTCSB2029
9	Secondary Filter	HTCSB2009	30	Abrasive Intake Hose	HTCSB2030
10	Retaining Disc	HTCSB2010	31	Air Hose Adaptor	HTCSB2031
11	Rubber Gloves (pair)	HTCSB2011	32	Worm Drive Clip	HTCSB2032
12	Worm Drive Clip	HTCSB2012	33	Air Hose	HTCSB2033
13	Clear Plastic Lid	HTCSB2013	34	Flat Washer	HTCSB2034
14	Knob	HTCSB2014	35	Adaptor Nut	HTCSB2035
15	Lid Retaining Chain	HTCSB2015	36	Gun	HTCSB2036
16	Clear plastic window	HTCSB2016	37	O-ring	HTCSB2037
17	Window Retaining Strip	HTCSB2017	38	Plug	HTCSB2038
18	Lid Hinge	HTCSB2018	39	Adaptor	HTCSB2039
19	Florescent Tube Clip	HTCSB2019	40	Abrasive Pickup	HTCSB2040
20	Air Vent Foam Packing	HTCSB2020	41	Worm Drive Clip	HTCSB2041
21	Lid Swivel Clamp	HTCSB2021	42	Grid Foot	HTCSB2042
22	Cable Connection Box	HTCSB2022			
23	Cabinet Only (no lid)	HTCSB2023			
24	End Cap	HTCSB2024			

# A SELECTION FROM THE VAST RANGE OF

# Clarke®

## QUALITY PRODUCTS

### AIR COMPRESSORS

From DIY to industrial, Plus air tools, spray guns and accessories.

### GENERATORS

Prime duty or emergency standby for business, home and leisure.

### POWER WASHERS

Hot and cold, electric and engine driven - we have what you need

### WELDERS

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

### METALWORKING

Drills, grinders and saws for DIY and professional use.

### WOODWORKING

Saws, sanders, lathes, mortisers and dust extraction.

### HYDRAULICS

Cranes, body repair kits, transmission jacks for all types of workshop use.

### WATER PUMPS

Submersible, electric and engine driven for DIY, agriculture and industry.

### POWER TOOLS

Angle grinders, cordless drill sets, saws and sanders.

### STARTERS/CHARGERS

All sizes for car and commercial use.



**PARTS & SERVICE: 020 8988 7400**

**E-mail: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com) or [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)**

**SALES: UK 01992 565333 or Export 00 44 (0)1992 565335**

**Clarke** INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG  
[www.clarkeinternational.com](http://www.clarkeinternational.com)